

### **ABSTRACT**

A linear translation device includes a frame, a carriage pivotally coupled to the frame, a drive arm body coupled to the carriage and rotatably coupled to the frame, and an actuator coupled to the drive arm body and the frame to effect rotation of the drive arm body about a pivot point. The device effects linear motion to the carriage by rotating the drive arm body by the actuator about the pivot point. An object, such as an optical component, is secured to the carriage such that linear motion of the carriage conveys linear motion to the object. Each of the frame, carriage and drive arm body are preferably coupled to each other with flexures to facilitate substantially frictionless linear translation of motion to the carriage and object secured to the carriage when the drive arm body is rotated by the actuator.